

*The
Connecticut
Agricultural
Experiment
Station,
New Haven*

**Feed Products
and Pet Foods
Inspected 1987**

BY LESTER HANKIN

(AUG 18 1989)

Bulletin 861

July 1988

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Feed Products and Pet Foods

Inspected 1987

BY LESTER HANKIN

Chemical analyses of 420 official samples of feed products and pet foods collected during 1987 by inspectors of the Connecticut Department of Agriculture are presented in this Bulletin. Two-hundred ten are for farm animals. Although the 210 pet foods are mainly for dogs and cats, food for caged and wild birds and for rabbits is included.

Table 1 shows individual samples from 31 manufacturers. In the Table the brand names for individual products from each manufacturer are followed by the percentage guarantee for protein, fat, fiber, and ash. For example, the numbers, 11, 6, 1, 4 indicate that a minimum of 11% protein, a minimum of 6% fat, a maximum of 1% fiber, and a maximum of 4% ash are guaranteed. The analyses are then shown with deficiencies in protein and fat followed by a dash (-) and excesses in fiber and ash followed by a plus (+) sign.

Table 2 summarizes the number of samples from each manufacturer and the number of guarantees for ash. The number of guarantees for protein, fat, and fiber is the same as the number of samples. Next is shown the percentage not meeting the guarantee for each nutrient, followed by the average percentage of guarantee for each nutrient.

Two types of variability affect feed and pet food analysis and must be considered in judging deficiencies. The first is the variability among different batches of the same product. This variability can be noted by examination of the results of analyses on the same product from the same manufacturer. The second type of variability is among duplicate analyses on the same sample. This variability is shown by the statement: the mean difference between duplicates for protein, fat, fiber, and ash is about three-tenths percent.

Feed and pet foods are deemed deficient in protein and fat and excessive in fiber and ash if the analysis is not within analytical variations recommended by the Association of American Feed Control Officials. For all samples 7.6% were deficient in protein and 2.9% were deficient in fat. No samples contained excess fiber or ash. In all, 9.8% of the samples examined were deficient in one or more nutrients.

Analyses were by Helen Kocaba, Mamie Pyles, Mary Withrow, Mary Alice DeFrancesco, and Deborah Behnfield. Samples were collected by Marilyn Abt, Richard Macsuga, Richard Olson, and Alton VanDyke under the direction of Kenneth Veit, Chief of the Marketing Division of the Department of Agriculture. Feed laws are administered by the Commissioner of the Connecticut Department of Agriculture.

Lester Hankin, Chief, Analytical Chemistry

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
ADM Milling								
ADM Wheat Middlings with Ground Wheat	15	4	9.5		17.8	3.5-	8.7	
Agway, Inc.								
Agway 37% Hog Concentrate	37	2	6		37.8	2.6	6.0	
Agway 48% Solvent Extracted Soybean Meal	48	0.5	3.5		48.6	1.3	3.6	
Agway Big Red Special Rabbit	15	2.5	15		15.2	3.1	14.8	
Agway Choice for Horses	12	2	20		14.4	3.8	11.9	
Agway Choice for Horses	12	2	20		12.9	3.2	9.9	
Agway Choice for Horses	12	2	20		13.3	3.3	10.6	
Agway Country Chick Starter (Med.)	18	3	4		19.9	3.9	3.0	
Agway Country Chicken Grower	14.5	3.5	4		15.1	4.2	2.8	
Agway Country Chicken Grower (Med.)	14.5	3.5	4		16.6	4.2	3.6	
Agway Country Egg Layer	16	3	4		16.8	4.0	3.0	
Agway Country Egg Layer	16	3	4		19.0	3.5	2.5	
Agway Country Egg Layer	16	3	4		16.0	3.6	3.5	
Agway Country Egg Layer	16	3	4		17.6	4.0	3.9	
Agway Country Egg Layer	16	3	4		16.0	3.6	3.3	
Agway Country Game & Turkey Feed	16	3	8		16.4	3.8	3.1	
Agway Country Game & Turkey Feed (Med.)	16	3	8		18.8	4.5	3.5	
Agway Country Game & Turkey Grower (Med.)	21	3	4.5		21.6	3.4	2.9	
Agway Country Game & Turkey Grower (Med.)	21	3	4.5		21.0	4.6	2.6	
Agway Country Turkey Grower	21	3	4.5		23.3	3.6	2.6	
Agway Crunchy Pro-Right 5500-16(Ruminants)	16	3	7		16.7	5.0	3.5	
Agway Gro-Right Calf Crunch	18	3	7		19.2	3.4	4.2	
Agway Pig Starter Pellets	18	3.5	4.5		18.2	4.6	2.4	
Agway Pro Lean 14% Hog Feed (T20 Med)	14	3	5		15.7	3.4	2.3	
Agway Pro lean 14% Hog Feed (T20 Med.)	14	3	5		14.9	2.8	2.0	
Agway Pro lean 14% Hog Feed (T20 Med.)	14	3	5		14.3	4.5	3.5	
Agway Pro Lean 16% Sow/Pig Feed (T40 Med.)	16	3	5		17.0	3.8	3.2	
Agway Pro Lean Gestating Swine Feed	14	2.5	10		19.6	3.2	5.6	
Agway Pro Lean Pit Starter Pellets (Med.)	18	3.5	4.5		18.6	4.4	2.0	
Agway Ratio Right 550-16 (Ruminants)	16	3	7		16.7	4.5	4.0	
Agway Respond Horse Feed	12.5	2	12		15.0	2.7	5.1	
Agway Scratch Grains	9	2	5		9.8	6.2	3.2	
Agway Scratch Grains	9	2	5		9.6	5.0	2.8	
Agway Super Fit-N-Fresh 13 Ratio-Right	13	3	8.5		15.0	3.7	4.1	
Agway Trim for Horses	14	2.5	10		15.4	3.3	4.2	
Big Red Special Rabbit Pellets	15	2.5	15		16.8	3.0	14.0	
Bloomfield 16% Coarse Dairy	16	4	8.5		17.6	4.5	3.8	
Blue Label Milk Replacer Medicated	22	10	0.5		22.1	10.3	0.4	
Champion	14	2.5	7		14.8	3.3	3.2	
Country Broiler Maker (Med.)	21	3.5	4		21.6	4.1	2.7	
Country Egg Layer Pellets	16	3	4		16.7	3.3	3.2	
Country Game & Turkey Breeder	18	3	4.5		18.1	5.0	2.7	
Country Game & Turkey Feed (Med.)	16	3	8		14.9-	4.1	3.7	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Country Game & Turkey Feed (Med.)	16	3	8		17.6	3.1	3.1	
Country Game & Turkey Grower (Med.)	21	3	4.5		22.5	3.7	2.7	
Country Game & Turkey Starter (Med.)	28	3	4		26.5-	2.3-	2.9	
Country Turkey Grower (IP Med.)	21	3	4.5		22.3	5.1	4.0	
Crunchy 16 for Ruminants	16	3.25	8		16.6	3.8	5.7	
Milk Right 16 (NU)	16	2.5	12		15.6	4.8	6.2	
Performance Extruded Horse Feed	14	3	10		15.2	3.9	6.2	
Pro Lean 14% Hog Feed (T20 Med.)	14	3	5		14.0	4.4	2.9	
Pro Lean 16% Sow & Pig Feed T-40 (Med.)	16	3	5		15.4	4.6	3.4	
Pro Lean 16% Sow & Pig Food T-40 (Med.)	16	3	5		17.4	3.3	2.7	
Pro Lean Pig Starter Pellets (Med.)	18	3.5	4.5		18.0	4.1	3.0	
Pro Right RC 4000-22	22	3	6.5		22.2	3.5	4.0	
Pro Right RC 5000-18	18	3	6.5		19.3	4.1	4.1	
Ratio Right 501-16	16	3	8.5		16.0	3.6	4.6	
Ratio Right 550-16	16	3	7		16.3	4.2	4.8	
Trim Form	14	2.5	10		14.9	3.1	4.5	
Big Bet Pet Foods								
Big Bet Beef Chunks/Dogs	11	5	1.5		12.3	8.5	0.3	
Big Bet Beef/Dogs	11	5	1.5		11.9	7.1	0.5	
Big Bet Chicken/Dogs	10	8	1.5		10.3	10.8	0.4	
Big Bet Lamb Chunks/Dogs	11	5	1.5		11.4	7.4	0.9	
Big Bet Liver Chunks/Dogs	12	5	1.5		12.3	7.9	0.6	
Big Bet Low Ash Beef & Chicken Dinner/Cats	10	5	1	1.5	12.4	11.1	0.2	1.5
Big Bet Low Ash Beef & Liver Dinner/Cats	11	5	1	1.5	11.6	10.9	0.7	1.4
Big Bet Low Ash Beef Dinner/Cats	10	5	1	1.5	11.0	10.0	0.3	1.2
Big Bet Low Ash Beef Dinner/Cats	10	5	1	1.5	10.0	9.0	0.3	1.3
Bloomfield Farmers Exchange								
48% Dehulled Solvent Extracted Soybean Meal	48	0.5	3.5		48.2	1.4	3.4	
Bloomfield 16% Coarse Dairy	16	4	8.5		18.4	4.9	4.4	
Crimped Oats with Molasses	10	4	12.5		12.3	5.7	4.4	
Carnation Co.								
Carnation Family Farm Chick Starter (Med.)	18.5	2.5	5.5		18.6	7.3	6.5	
Carnation Family Farm Egg Maker 13	13	3	7		13.4	4.9	4.3	
Carnation Family Farm Turkey Finisher	13.5	3.5	5		16.2	4.8	3.1	
Family Farm Hog Finisher	12	3	7		15.0	4.2	5.4	
Fancy Feast Beef & Liver Gourmet/Cats	12.5	4.5	1	3	12.5	7.8	0.5	2.3
Fancy Feast Beef/Chicken Feast Gourmet/Cats	12.5	6.5	1	2.8	13.3	7.9	0.6	2.3
Fancy Feast Chopped Grill Gourmet/Cats	11.5	6	1	2.7	14.3	7.3	0.5	2.5
Fancy Feast Cod, Sole, Shrimp Gourmet/Cats	14	3	1	3.5	16.7	3.5	0.3	3.6
Fancy Feast Country Beef Gourmet/Cats	12	6	1	3.2	14.0	7.0	0.7	2.9
Fancy Feast Gourmet Chicken Feast/Cats	12	5	1	3.2	12.5	7.8	0.5	3.2
Fancy Feast Ocean Whitefish/Tuna Gourm/Cats	14	3	1	3.7	15.8	3.4	0.7	3.7
Fancy Feast Prime Feast Gourmet/Cats	12	5	1	2.5	14.3	6.5	0.4	2.7

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Fancy Feast Sav Salmon Feast Gourmet/Cats	13	3	1	3	14.8	6.8	0.4	2.5
Fancy Feast Seafood Feast Gourmet/Cats	14	3	1	3.5	14.3	4.4	1.1	3.0
Fancy Feast Tender Liver/Chicken Gourm/Cats	15	5	1	2.5	17.0	8.0	0.6	2.3
Fancy Feast Turkey/GIBLETS Gourmet/Cats	13	6.5	1	2.9	13.1	12.1	0.8	2.3
Friskees Buffet Beef & GIBLETS Dinner/Cats	11	7	1	2.5	11.3	10.9	0.9	2.0
Friskees Buffet Beef & Liver Dinner/Cats	10.5	7	1	3	13.8	8.8	0.3	2.5
Friskees Buffet Country Style/Cats	10	6	1	2.5	10.8	8.9	0.7	2.0
Friskees Buffet Elegant Entree/Cats	10	5.5	1	3	12.7	10.8	0.4	3.2
Friskees Buffet Mixed Grill/Cats	10.5	5	1	2.5	12.7	6.3	1.0	2.1
Friskees Buffet Poultry Picnic/Cats	10	8	1	2	12.9	9.0	0.6	2.1
Friskees Buffet Prime Entree/Cats	11	5	1	2.5	12.4	7.6	0.4	2.1
Friskees Buffet Salmon Dinner/Cats	10	5	1	3	13.8	7.3	1.0	1.6
Friskees Buffet Seafood Supper/Cats	12.5	3	1	2	16.4	8.5	0.3	2
Friskees Buffet Southern Style Dinner/Cats	8	6	1	2.5	11.1	9.4	0.3	2.6
Friskees Buffet Turkey/Chicken Entree/Cats	10	6	1	3	10.5	7.3	1.3	2.7
Friskees Buffet Turkey/GIBLETS Dinner/Cats	10.5	6	1	3	11.9	8.7	0.5	2.7
Super Foal	17	2	7		19.0	4.0	6.3	
Turkey Grower Medicated	20	3.5	5.5		18.2-	3.9	3.3	
Central Conn. Coop.								
20% Dairy Treat Pellets	20	3	8.5		20.9	3.3	6.5	
20% Hi Energy Pellets	20	3	8.5		23.3	5.4	8.6	
20% Hi Pro Pellets	20	3	8.5		23.4	4.6	5.9	
20% Hi Pro Pellets	20	3	8.5		20.4	3.3	4.7	
24 Coag Pellets	24	3.25	8.5		23.3	4.6	4.2	
24% Hi Pro Pellets	24	3	8.5		24.1	3.6	5.2	
7033 Mash	23	4	7		21.8	5.8	4.9	
CCC 16 Dairy Treat Pellets	16	3	8.5		21.2	4.4	4.9	
Young Wean + Grow Calf Pellets	20	3.5	3		20.3	3.9	2.1	
Evanger's Dog and Cat Food Co.								
Evanger's Beef Chicken & Liver/Dogs	12	5	1.5		15.3	7.5	0.4	
Evanger's Beef Chunks/Dogs/Cats	11	5	1.5		12.1	6.3	0.4	
Evanger's Beef with Beef Products/Dogs	12	5	1.5		12.0	6.9	0.5	
Evanger's Beef with Chicken/Dogs	12	5	1.5		12.7	9.1	0.7	
Evanger's Beef with Liver/Dogs	12	6	1.5		12.9	8.8	0.7	
Evanger's Chicken Liver & Tuna/Cats	11	3	1.5		11.0	6.4	1.4	
Evanger's Chopped Turkey/Dogs	10	5	1.5		11.6	7.9	0.4	
Evanger's Cooked Chicken/Dogs	12	5	1.5		12.2	8.2	0.9	
Evanger's Horsemear/Dogs	12	5	1.5		12.2	11.0	0.4	
Evanger's Liver & Meat By-Prod/Dogs	12	5	1.5		12.1	9.0	0.3	
Evanger's Premium Beef/Dogs	13	5	1.5		13.0	8.9	0.6	
Evanger's Seashore Dinner/Cats	11	3	1.5	2	9.8-	4.5	0.7	2.6
Evanger's Total Ration/Dogs	10	3	1.5	4	10.1	8.0	0.7	3.3

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Finast Supermarkets								
Finast Chicken & Liver Dinner/Cats	10	8	1		11.1	10.5	0.2	
Finast Chopped Beef Dinner/Dogs	11	5	1.5		11.3	9.4	1.4	
Finast Flavor Beef/Dogs	8	2	1.5		8.8	1.6-	1.4	
Finast Lamb Chunks Dinner/Dogs	11	7	1.5		14.1	7.1	0.7	
Finast Meat Poultry Liver Dinner/Dogs	11	5	1.5		11.0	8.9	0.5	
Finast Sea Food Dinner/Cats	14	4	1		14.3	9.4	0.3	
Finast Tuna & Egg Dinner/Cats	12	5	1		13.8	9.1	0.8	
Finast Tuna Dinner/Cats	11	5	2		12.0	9.4	0.3	
Finast Turkey & Giblet Dinner/Cats	11	7	1		12.8	11.5	0.4	
Gaines Foods, Inc.								
Gaines Cycle 1-Puppies	10	6	2		10.4	7.3	1.1	
Gaines Cycle 2 Beef Flavored/Adult Dog	7	5	2		7.7	9.5	1.1	
Gaines Cycle 3 Beef Flavored/Adult Dog	7	2	5		7.8	3.0	2.9	
Gaines Cycle 4 Chicken Flavor/Senior Dog	5	4	5		5.9	5.1	3.6	
H. K. Webster Co., Inc.								
Blue Seal Broiler Crumbles (CB Medicated)	21	6.5	3		23.4	7.0	2.4	
Blue Seal Charger Three-in-one Horse Feed	14	2.5	12.5		14.2	3.3	7.2	
Blue Seal Coarse 14/Test Cow/Live Stk Ratn	11	3.5	8		14.9	4.2	5.8	
Blue Seal Contender Horse Feed Pellets	16	3.5	7.5		16.9	4.0	5.8	
Blue Seal Fat Finish Pellets	18	4.5	3.5		21.0	4.9	2.9	
Blue Seal Game Bird Crumbles	20	4.5	4		21.0	5.1	3.0	
Blue Seal Growers Cal Mash	15	3	4		16.0	3.9	2.3	
Blue Seal Hutch 18 Pels Rabbit Pellets	18	2.5	15		18.6	3.5	14.6	
Blue Seal Lamb Finisher Pellets	15	3.5	7		16.0	3.2	2.8	
Blue Seal Layer Mash	15	3	4		16.6	3.5	2.9	
Blue Seal Layer Pellets	15	3	4		16.6	3.5	3.1	
Blue Seal Milk Maker 16	16	3	8.5		17.8	3.7	7.3	
Blue Seal Milk Maker 20, Dairy Pellets	20	3	8.5		20.0	3.1	8.3	
Blue Seal Milky Way Milk Replacer Medicated	22	10	0.5		18.7	12.0	0.5	
Blue Seal Natural 26 Dog Food	26	10	4		24.9-	12.9	2.7	
Blue Seal Piglets Crumbles	18	3.5	7		18.9	4.0	4.4	
Blue Seal Puppy Food Formula 28	28	10	4		26.4	12.5	2.6	
Blue Seal Sing Along Wild Bird Food	10	5	7.5		10.7	6.5	3.7	
Blue Seal Trotter Compl Horse Ration Pell	14	2.5	20		14.6	3.4	11.3	
Blue Seal Turkey Grower Pellets	20	4.5	4		19.2-	4.7	3.5	
Breeder Pellets	17	3	3.5		17.3	3.4	2.3	
Broiler Crumbles Medicated	21	6.5	3		20.6	6.7	2.1	
Bunny 16 Pels	16	2.5	18		16.3	3.8	15.1	
Charger Horse Feed	14	2.5	12.5		14.4	3.8	7.9	
Chick Starter AM Medicated	20	3	4		20.8	3.2	3.1	
Coarse 14 Test Cow & Livestock Ration	14	3.5	8		14.3	3.7	5.5	
Coarse 16 Test Cow & Livestock Ration	16	3.5	8		16.1	3.5	5.4	
Coarse 18 Test Cow & Livestock Ration	18	3.5	8		16.1-	3.7	5.9	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Contender Horse Feed Pellets	16	3.5	7.5		16.7	4.9	6.3	
Contender Horse Feed Pellets	16	3.5	7.5		16.4	4.6	6.5	
Energizer 20 Dairy Pellets	20	3.2	5.5		20.0	3.5	3.8	
Energizer 20 Dairy Pellets	20	3.2	5.5		19.4	4.0	3.3	
Fat & Finish Pellets	18	4.5	3.5		18.1	4.7	2.5	
Fat & Finish Pellets	18	4.5	3.5		18.3	4.7	2.5	
Game Bird Crumbles	20	4.5	4		20.1	5.2	3.1	
Grower-Cal Mash	15	3	4		17.2	5.2	4.0	
Hi Pro 20 Pels Rabbit Pellets	20	2.5	12		20.0	3.6	9.9	
Hi Pro 20 Rabbit Pellets	20	2.5	12		18.1-	3.7	10.5	
Hutch 18 Pels Rabbit Pellets	18	2.5	15		18.0	4.1	1.4	
Hutch 18 Pels Rabbit Pellets	18	2.5	15		18.0	4.1	1.4	
Hutch 18 Pels Rabbit Pellets	18	2.5	15		18.4	4.1	11.5	
Lamb BT Pellets Medicated	18	3.5	7		17.4	3.5	3.3	
Lamb Finisher Pellets	15	3.5	7		15.0	3.9	4.3	
Layer Mash	15	3	4		16.8	2.8	2.2	
Layer Pellets	15	3	4		15.5	3.7	2.7	
Mustang Horse Feed	12	3	9		13.6	4.3	5.5	
Mustang Horse Feed	12	3	9		13.9	3.8	4.8	
Natural 26 Dog Food	26	10	4		26.1	11.4	2.7	
Pacer Horse Feed	12	3	9		12.4	3.7	7.0	
Pig & Sow Pellets	15	3.5	7		14.5	3.8	5.7	
Pig & Sow Pellets	15	3.5	7		16.4	4.0	4.7	
Piglets Crumbles Medicated	18	3.5	7		19.0	4.5	5.4	
Piglets Crumbles Medicated	18	3.5	7		18.1	3.7	4.1	
Scratch Feed	9	2.5	5		9.1	5.7	2.1	
Scratch Feed	9	2.5	5		9.7	5.2	2.3	
Stampede Horse Feed	18	3	9		18.1	3.5	6.0	
Strider Horse Feed Pellets	11	3	7		11.1	3.6	4.4	
Sunshine Plus with Yeast Culture	25	2	4		25.6	2.1	3.2	
Trotter Horse Pellets	14	2.5	2		14.0	3.9	1.4	
Turkey Grower Pellets	20	4.5	4		18.6-	5.6	3.4	
Turkey Grower Pellets HS Medicated	20	4.5	4		20.4	4.8	3.3	
Turkey/Game Bird Starter Crumbles (Med.)	28	4.5	4		25.9-	5.3	3.5	
Turkey/Game Bird Starter Crumbles (Med.)	28	4.5	4		25.5-	4.8	3.0	
Heinold Feeds, Inc.								
38% Dairy Supplement	38	1.75	8		38.0	2.0	6.7	
Heinold 16% Creep Complete Sheep Pellets	16	3	8		17.4	4.3	6.1	
Heinold Square Deal 16% Sheep Pellets	16	4	5.75		16.0	2.8-	7.7	
Heinold Square Deal Economy 40% Hog Suppl	40	2.5	7		33.9-	1.7	5.3	
Heinold Square Deal 38% Sheep Conc	38	1.5	8		38.3	2.3	5.8	
Heinold Square Deal Rabbit Pellets 17-17	17	2.5	17		17.7	3.6	13.2	
Show Results Rabbit Pellets	15	3	20		15.6	3.6	17.1	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
High-Tech Feed, Inc.								
12% Grow Show	12	2.5	9		17.8	4.0	6.8	
14% Sheep	14	4	5.75		17.1	3.4-	5.4	
16% Layer Feed	16	5	7.5		18.2	3.3-	6.0	
17% Grow Show	17	2.5	9		17.6	4.2	6.9	
18% Layer Feed	18	4	5		18.8	4.9	2.4	
20% Layer Feed	20	3.5	7.5		20.6	5.2	4.8	
Rabbit Grown Pellets	17	2.5	17		18.8	1.3-	12.5	
IAMS Co.								
Eukanuba Dog Food	30	20	4		30.8	19.8	1.9	
Eukanuba Dog Food	30	20	4		30.8	19.8	2.1	
IAMS Mini Chunks	26	15	5		26.8	15.0	2.3	
IAMS Puppy Food	28	17	4		27.5	14.0	1.9	
K & L Mill Corp.								
16% Dairy Ration Pelleted Hi-Energy	16	3	8		16.3	3.2	2.7	
K & L 14% Sprinter	14	3	8		14.9	3.2	2.9	
K & L 14% Sprinter Horse Feed Pellets	14	3	8		14.1	4.4	5.2	
K & L 16% Dairy Ration Pell High Energy	16	3	8		16.1	4.3	4.9	
K & L 16% Layer Mash	16	3	4		18.2	3.9	2.9	
K & L 16% Layer Pellets	16	3	4		16.1	3.1	2.6	
K & L 16% Layer Pellets	16	3	4		16.9	3.1	2.0	
K & L 20% Layer Mash	20	3	4		20.0	3.1	2.6	
K & L Chick Starter	20	4	4		20.0	3.1-	2.6	
K & L Grower Mash	14	3	8		14.0	3.6	2.0	
K & L Layer - 18	18	3	4		18.1	4.0	2.0	
K & L Layer - 18	18	3	4		18.1	4.0	2.1	
K & L Layer - 20	20	3	4		20.0	4.2	3.1	
K & L Pig Grower Pellets	15	3	4		15.4	3.4	2.7	
K & L Pig Grower Pellets	15	3	4		15.6	5.4	1.6	
K & L Sow Feed Pellets	12	3	5		12.6	3.6	2.5	
K & L Sow Feed Pellets	12	3	5		13.3	4.0	1.9	
L 3175 (Customer formula)	17	3	4		17.6	5.8	1.7	
L 3205 (Customer formula)	20	3	4		20.7	5.8	1.9	
Land O Lakes Inc.								
Land O Lakes Milk Repl (Med.)	24	30	0.15		23.2	29.4	0.01	
Manna Pro Corp.								
16 Mil-King Pellets Dairy Feed	16	3	12		16.6	3.4	5.4	
Classic 16 Goat Feed	16	2	10		15.8	4.0	6.3	
Country Cousin Dinners with Gravy/Dogs	21	7	5.5		21.4	9.2	2.7	
Double Duty Rabbit Pellets	16	2.5	20		15.4	3.8	16.2	
Duck Grower Pellets 19%	19	3	6		19.8	3.9	6.1	
Egg Maker 15 Crumbles	15	3	7		16.4	4.3	3.3	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Family Farm Hog Grower	16	3	7		16.1	3.8	5.1	
Game Bird Breeder	20	3	6		19.6	4.9	4.2	
Hearty 21 Dog Food Chunkets	21	7	6		21.1	6.9	1.4	
Manna Mate 18 Calf Starter Developer	18	3	8		15.2-	3.0	3.4	
Manna Pro Calf Manna	25	3	6	10	20.2	3.0	3.1	9.2
Manna Pro Calf Manna	25	3	6	10	22.4-	3.5	3.5	7.2
Manna Pro Classic Cat Dinners Ocean Fish Fl	30	8	4.5	12	30.6	9.2	2.0	9.2
Manna Pro Classic Chunks/Dogs	21	8	5.5		22.3	9.4	2.9	
Manna Pro Double Duty Rabbit Feed	16	2.5	20		16.0	3.2	20.3	
Manna Pro Double Duty Rabbit Pellets	16	2	20		16.4	2.7	18.7	
Manna Pro Egg Maker 13 Pellets	13	3	7		13.9	4.3	5.8	
Manna Pro Family Farm Hay Finisher	12	3	7		15.1	5.3	6.1	
Manna Pro Family Farm Pell Grower Dev Meal	15	2.5	7		18.4	4.6	7.7	
Manna Pro Rabbit Family Ration 18	18	2	20		18.8	3.1	15.3	
Manna Pro Smorgasbird Wild Bird Feast	10	4	7.5		11.2	8.6	7.7	
Manna Pro Stables Choice 12	12	2	13		13.3	3.0	5.6	
Manna Pro Turkey Starter Medicated	26	4	5		24.1-	5.6	4.0	
New England 16% Coarse Feed	16	2	12		16.7	3.9	8.6	
Poultry Feed Egg Maker 15 Pellets	15	3	7		15.1	4.2	3.0	
Rabbit Family Ration 18	18	2	20		18.3	4.3	17.5	
Round-Up Complete Horse Feed	12	2	25		14.8	3.9	19.2	
Scratch Grains	8	2	4		8.8	3.6	2.1	
Stables Choice 10 Horse Feed	10	2	13		11.5	3.6	6.3	
Stables Choice 14 Horse Feed	14	2	13		14.6	3.3	7.5	
Suckle Medicated Milk Replacer For Calves	22	10	0.5	9	20.5-	10.2	0.5	7.7
Super Horse	14	3	6.5		14.3	3.6	3.6	
Sweet Rely Horse Feed	12.5	1.5	15		11.2-	2.5	9.3	
Trip-L-Duty Pakett All Purpose Poultry Feed	16	3	10		17.1	4.3	5.0	
Northern Pride Feed								
Northern Pride Stm Crimped Race Horse Oats	11	3	12		12.7	7.1	5.1	
Perk Foods								
Cadillac 5 in 1/Dogs	10	6	1.5		10.9	10.0	1.3	
Cadillac Chicken & Liver Dinner/Dogs	10	7	1.5	3.5	12.7	9.9	1.1	2.2
Cadillac Chicken Dinner/Dogs	9	8	1.5	3.5	10.4	12.9	0.7	3.0
Cadillac Liver, Bacon, Eggs Dinner/Dogs	10	5	1.5		12.1	16.8	0.5	
Cadillac Turkey Dinner/Dogs	10	6	1.5		11.4	11.0	1.0	
Vets Beef & Cheese Flavored/Dogs	8	2	1.5		8.8	2.5	1.6	
Vets Chicken Flavored/Dogs	8	2	1.5		9.1	1.9	2.4	
Vets Dog Food	8	2	1.5		9.2	2.1	1.9	
Vets Liver Flavored/Dogs	8	2	1.5		8.8	2.0	2.4	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Purina Mills, Inc,								
Purina Game Bird Starter BMD	30	2.5	6.5		32.8	4.6	4.7	
Purina Goat Chow	16	2.5	9		16.9	2.6	3.7	
Purina High Octane Pig Starter 28-56	19	7	5		19.0	10.2	3.7	
Purina Hog Grower Chow (Med.) 50 TM	16	2.5	5		16.8	3.2	3.0	
Purina Layena	16	2.5	7		16.9	3.9	4.8	
Purina Meat Builder	20	3	5		20.0	4.3	3.6	
Purina Mills Turkey Growers (Med.) IPZ	20	3	5.5		19.1-	4.1	4.2	
Purina Omolene 200	14	2	8		14.9	4.0	3.9	
Purina Scratch Grains	8	1.5	4.5		10.4	3.8	2.8	
Purina Turkey Grower IPZ (Med.)	20	3	5.5		20.1	3.6	2.7	
Quaker Oats Co.								
King Kuts Sliced Beef & Chicken Dinner/Dogs	10	3	1	3.5	11.8	5.9	0.6	2.6
King Kuts Sliced Beef & Liver Dinner/Dogs	10	3	1	3.5	9.6	5.3	0.7	2.4
King Kuts Sliced Beef & Liver Dinner/Dogs	10	3	1	3.5	10.4	5.4	0.6	2.5
King Kuts Sliced Beef Dinner/Dogs	10	3	1	3.5	10.4	6.5	0.2	2.7
Puss N Boots Pounce Beef/Cats	20	8	1.5		20.0	10.4	0.6	
Puss N Boots Pounce Chicken/Cats	20	8	1.5		21.1	10.2	0.6	
Puss N Boots Pounce Liver/Cats	20	8	1.5		20.0	11.5	0.5	
Puss N Boots Pounce Shrimp/Cat Treats	20	8	1.5		21.0	10.9	0.5	
Ralston Purina Co.								
Pro Plan Adult Formula	10	6	2	3	12.8	8.2	0.5	2.6
Purina 10 Tuna & Liver Dinner	16	2	1		17.4	7.0	0.6	
Purina 100 Beef & Liver Dinner Cat Food	12	3	1	3	13.2	9.0	0.7	2.7
Purina 100 Chicken Dinner Cat Food	12	3	1	3	12.9	8.2	0.5	3.1
Purina 100 Clam Platter	12	2	1		12.8	2.5	0.8	
Purina 100 Country Dinner Cat Food	11.5	2	1	3	14.9	7.2	0.2	3.4
Purina 100 Hearty Stew/Cats	12	3	1		12.4	4.9	0.3	
Purina 100 Liver Dinner/Cats	12	4	1		14.1	6.4	0.7	
Purina 100 Ocean Whitefish Entree Cat Food	12	2	1	3	12.0	10.3	0.8	3.1
Purina 100 Ship & Shore Dinner/Cats	12	2	1		16.6	4.9	0.3	
Purina 100 Southern Style Cat Food	12	4	1		12.4	9.0	0.3	
Purina 100 Tender Beef Dinner/Cats	12.5	3	1	3	12.8	4.9	0.5	2.0
Purina 100 Tuna & Chicken Dinner Cat Food	16	2	1		14.1-	11.7	0.4	
Purina 100 Tuna/Cats	20	2	1	2.5	23.9	4.5	0.4	2.0
Purina 100 Mackerel Dinner/Cats	14	2	1	2.5	16.6	4.6	0.7	2.8
Purina Pro Plan Adult Formula/Cats	10	6	2	3	13.8	6.5	0.4	2.6
Purina Pro Plan Cat Food Adult Formula	33	14	2	5.5	34.4	14.6	0.7	5.2
Purina Pro Plan Cat Food Growth Formula	31	20	3		32.3	20.7	0.6	
Purina Pro Plan Dog Food	25	15	3		24.7	15.1	1.3	
Purina Pro Plan Dog Food Adult Formula	25	15	3		24.6	18.9	0.8	
Purina Pro Plan Dog Food Adult Formula	25	15	3		25.1	18.4	0.9	
Purina Pro Plan Dog Food Growth Formula	28	18	3		31.4	20.3	0.8	
Purina Pro Plan Dog Food Perform Formula	30	20	2.5		30.7	21.9	0.7	

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Purina Pro Plan Growth Formula Cat Food	11	5	1.5		13.8	9.6	0.4	
Purina Pro Plan Growth Formula Dry	28	18	3		28.0	21.2	1.0	
Purina Pro Plan Performance Formula Dry	30	20	2.5		30.4	20.1	0.9	
Purina Rabbit Chow Performance Blend	17	2	18	8	16.7	2.9	13.6	7.4
Purina Turkey & Giblets Dinner/Cats	12	4	1	3	12.1	9.2	1.2	2.2
Star Kist Foods								
9 Lives Choice Cuts n Cheese Dinner/Cats	10.5	2	1	2	10.5	3.4	0.8	2.2
9 Lives Country Chicken N Gravy/Cats	10	3	1	2.5	15.7	4.4	0.4	1.7
9 Lives Fisherman's Stew/Cats	10	2	1	2.5	11.0	4.1	0.6	3.2
9 Lives Hearty Beef Dinner/Cats	10	2	1	4	12.3	3.4	0.7	1.6
9 Lives Liver & Bacon Dinner/Cats	11	6	1	3.5	13.8	6.8	0.6	2.1
9 Lives Liver & Chicken Dinner/Cats	11	4	1	3	12.1	5.3	0.5	2.4
9 Lives Liver & Egg Entree/Cats	10	2	1	2	16.6	3.7	0.5	2.0
9 Lives Ranch Supper/Cats	11	3	1	2.5	14.1	3.4	0.4	2.1
9 Lives Savory Stew/Cats	10.5	2	1	2	12.7	3.7	0.6	2.4
9 Lives Seafood Platter/Cats	14	3	1	4	16.8	2.4	0.7	3.4
9 Lives Sliced Beef in Gravy/Cats	11	2	1	2.5	12.7	4.9	0.7	1.5
9 Lives Sliced Veal in Gravy/Cats	11	2	1	2.5	13.9	3.2	0.3	1.4
9 Lives Super Supper/Cats	12	6	1	4	14.8	7.9	0.3	2.8
9 Lives Tuna & Cheese Bits/Cats	15.5	2	1	3	15.5	2.4	0.4	1.4
9 Lives Tuna & Chicken/Cats	14	5	1	3	16.4	7.6	0.8	2.6
9 Lives Tuna & Liver/Cats	16	2	0.5	3	16.6	3.5	0.3	2.0
9 Lives Turkey & Giblets in Gravy/Cats	11	2	1	4	11.2	3.7	0.4	1.7
9 Lives Western Menu/Cats	11	4	1	3.5	13.6	4.2	0.7	2.6
Amore Poached Salmon Dinner For Cats	12	3	1	4	15.0	7.5	0.5	3.4
Stop & Shop Supermarkets								
Stop & Shop Beef & Liver Dinner/Cats	14	4.5	1	2.3	14.0	8.3	0.4	1.1
Stop & Shop Beef Chunks & Meat By-Prod/Dogs	12	7	1.5	3	11.1	9.2	0.8	1.9
Stop & Shop Chicken & Chicken Parts/Dogs	11	8	1.5	4	11.0	10.6	0.6	3.1
Stop & Shop Chopped Grill Dinner/Cats	12	7.5	1	2.6	12.4	13.4	0.6	1.4
Stop & Shop Fish Flavor/Cats	10	2	1.5	4	10.6	3.0	0.7	4.2
Stop & Shop Gourmet Salmon Dinner/Cats	13	5	1	2.6	15.4	6.2	0.4	3.1
Stop & Shop Horsent Chnks/Meat By-Prod/Dogs	13	5	1.5	3	13.0	7.9	1.0	2.1
Stop & Shop Lamb Chunks & Meat By-Prod/Dogs	12	7	1	3.5	12.5	5.9	1.0	2.3
Stop & Shop Liver Chunks/Meat By-Prod/Dogs	13	3.5	1	3	9.1	5.1	0.4	1.4
Stop & Shop Mackerel Dinner/Cats	14	3	1	3.5	14.6	9.6	0.3	3.7
Stop & Shop Meat Flavored/Cats	10	2	1.5	4	10.4	7.8	0.5	4.0
Stop & Shop Seafood Dinner/Cats	14	3	1	4	14.0	5.4	0.3	2.8
Stop & Shop Seafood Dinner/Cats	14	3	1	4	14.4	10.4	0.5	2.8
Stop & Shop Tuna & Liver Dinner/Cats	14	2	1	4	16.2	3.9	0.4	1.8
Stop & Shop Tuna & Chicken Dinner/Cats	14	5	1	4	16.7	8.7	0.3	3.3
Stop & Shop Tuna & Chicken Dinner/Cats	14	5	1	4	15.3	9.3	0.3	2.1
Stop & Shop Tuna & Egg Dinner/Cats	14	2	1	3	18.9	2.7	0.5	2.3
Stop & Shop Tuna & Liver Dinner/Cats	14	2	1	4	20.8	3.1	0.4	1.8

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Sun Glory Chicken Flavored/Dogs	9	2	1.5		15.4	2.3	0.9	
Sun Glory Dog Food Beef Flavor	9	2	1.5		10.1	3.7	0.9	
Sun Glory Liver Flavored/Dogs	9	2	1.5		9.1	1.8	0.8	
Sunflower Inc.								
Feathered Friends Favorite	10.5	4	8		10.5	7.4	10.9	
Feathered Friends Bird Snack	11	6	10.5		12.1	8.4	6.0	
Supermarkets General Corp.								
Pathmark Beef Flavored/Dogs	8	1	1.5	3.5	6.5-	1.4	0.7	2.3
Pathmark Blend 5/Dogs	10	6	1		10.1	8.4	0.7	
Pathmark Chicken Flavored/Dogs	8	1.5	1.5	3	8.3	1.5	0.9	2.7
Pathmark Chopped Beef Dinner Vit Fort/Dogs	12	4.5	1.5	4	9.9-	7.0	0.6	1.7
Pathmark Chopped Horsemeat Vit Fort/Dogs	12	4.5	1.5	4	9.4-	5.3	1.0	1.8
Pathmark Horsemeat Chunks Dinner/Dogs	12.5	3.5	1.5	3	13.1	8.2	1.2	1.7
Pathmark Lamb Chunks Dinner/Dogs	12	4	1	3.5	12.6	8.8	0.9	1.9
Pathmark Liver Chunks Vit Fort/Dogs	12	3	1	3	9.6-	3.0	0.8	2.3
Pathmark Liver Flavored/Dogs	8	1.5	1.5	3	5.5-	1.2-	0.8	2.5
Pathmark Ration Dog Food	10	2.5	1		10.5	6.0	1.0	
Pathmark Stew for Dogs/Vitamin Fortified	10	4	1.5	3.5	11.3	5.3	0.9	1.7
Tizwhiz Distributers Inc.								
Brood Mare Ration	9	2	5		10.1	3.6	3.8	
Triumph Pet Industries, Inc.								
Hi Tor Beef N Liver/Dogs	11	7	1	2	10.1-	10.3	0.4	1.6
Hi Tor Beef/Dogs	11	7	1	2	11.0	7.3	0.5	1.7
Hi Tor Chicken For Dogs Premium	11	7	1	2	13.3	7.6	0.5	2.0
Hi Tor Chicken/Dogs	11	7	1	2	12.3	7.4	0.3	2.0
Hi Tor Geriatric Diet for Dogs	5	4	1	1.8	5.0	5.4	1.0	1.0
Hi Tor Heart Diet/Dogs	5	5.5	1	2	9.5	7.1	0.5	0.8
Hi Tor Intestinal Diet/Dogs	6.5	3	0.5	2	5.9-	3.8	0.1	1.8
Hi Tor Kidney Diet for Dogs	3.5	6	1	1.5	4.1	6.5	0.4	1.5
Hi Tor Puppy Weaning Diet/Dogs	11	5	1	2.5	10.0-	5.8	0.8	2.3
Hi Tor Reducing/Dogs	6.5	0.8	7	3	10.3	1.9	5.1	1.4
Hi Tor Triumph Premium Horsemeat for Dogs	11	7	1	2	13.8	12.7	0.4	1.2
Triumph Beef Chunks/Dogs	11	5	1.5	3.5	11.1	10.0	0.7	2.0
Triumph Beef Dog Food	11	5	1		11.0	7.9	0.7	
Triumph Chicken/Dogs	10	5	1	2	11.7	9.9	1.2	2.2
Triumph Horse Meat Dog Food	12	5	1	1	10.0-	7.9	0.6	1.4
Triumph Liver Dog Food	12	5	1		12.4	3.9-	0.7	
Triumph Low Ash Beef Dinner/Cats	11	6	1	1.2	11.4	9.1	0.3	1.5
Triumph Low Ash Beef N Cheese Dinner/Cats	11	6	1	1.2	11.7	8.4	0.3	1.0
Triumph Low Ash Beef N Chicken Dinner/Cats	10	6	1	1.2	10.4	7.1	0.3	0.9
Triumph Low Ash Beef N Egg Dinner/Cats	11	6	1	1.2	12.0	7.1	0.7	1.1

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES (Continued)

Manufacturer and brand	Nutrients claimed %				Nutrients found, %			
	Protein	Fat	Fiber	Ash	Protein	Fat	Fiber	Ash
Triumph Low Ash Beef N Heart Dinner/Cats	10	6	1	1.2	10.6	7.4	0.2	1.2
Triumph Low Ash Beef N Kidney Dinner/Cats	10	6	1	1.2	10.8	7.0	0.2	1.0
Triumph Low Ash Beef N Liver Dinner/Cats	11	6	1	1.2	15.1	7.5	0.2	1.1
Triumph Low Ash Beef Stew Dinner/Cats	10	6	1	1.2	12.9	8.1	0.4	1.0
Triumph Low Ash Beef/Liver/Bacon/Cats	11	6	1	1.2	15.9	8.1	0.1	1.0
Triumph Low Ash Liver Dinner/Cats	11	5	1	1.2	13.7	7.3	0.3	1.6
United Cooperative Farmers, Inc.								
UCF Complete Layer	15	3	5		15.0	4.1	2.7	
UCF Turkey Grower	20	3	5.5		20.3	4.1	2.9	
United Pet Foods, Inc.								
Best Friend Dog Food	26	10	4.5		22.4-	13.7	2.1	
Best Friend Dog Food Homog Chunk Style	21	8	4.5		15.5	8.5	2.7	
Ventura Grain Co., Inc.								
Everyday 16% Dairy	16	3.5	9		16.6	3.8	6.8	
Everyday 16% Layer Pellet	16	3	4.5		16.2	3.1	3.0	
Everyday Complete Layer 16	16	3	4.5		16.1	3.7	2.7	
Wauregan Grain Co., Inc.								
Wauregan 16% Pork Maker Plus	16	3	4.5		16.9	4.1	3.3	
Wauregan Milkers Choice 1680	16	3	8		16.7	3.5	7.0	
Wauregan Milkers Choice 2080	20	3	8		19.0-	3.5	2.5	
Wauregan Test Cow 2490	24	3.5	6		26.4	5.9	4.9	

TABLE 2--SUMMARY FOR EACH MANUFACTURER OF NUMBER OF SAMPLES TESTED, NUMBER OF GUARANTEES FOR ASH CONTENT, PERCENTAGE OF CLAIMS FOR EACH NUTRIENT NOT MEETING GUARANTEES, AND AVERAGE PERCENTAGE OF GUARANTEE FOR EACH NUTRIENT.

Manufacturer	Samples (guarantees for ash)	% Not meeting guarantees				Average % of guarantee			
		protein	fat	fiber	ash	protein	fat	fiber	ash
ADM Milling	1(0)	0	100	0	-	119	88	92	-
Agway	58(0)	3	2	0	-	106	138	63	-
Big Bet Pet Foods	9(4)	0	0	0	-	108	175	37	90
Bloomfield Farm. Exch.	3(0)	0	0	0	-	123	143	35	-
Carnation	30(24)	3	0	0	0	115	156	65	86
Central Conn. Coop.	9(0)	0	0	0	-	107	135	68	-
Evangers	13(2)	8	0	0	0	105	175	42	106
Finast Supermarkets	9(0)	0	11	0	-	111	161	50	-
Gaines Foods	4(0)	0	0	0	-	111	147	60	-
H.K. Webster	63(0)	11	0	0	-	103	125	70	-
Heinold Feeds	7(0)	14	14	0	-	100	116	87	-
High-Tech Feeds	7(0)	0	43	0	-	115	115	73	-
IAMS	4(0)	0	0	0	-	102	95	48	-
K & L Mill Corp.	19(0)	0	5	0	-	103	131	53	-
Land O Lakes	1(0)	0	0	0	-	97	98	7	-
Manna Pro Corp.	34(4)	15	0	0	0	103	144	67	82
Northern Pride	1(0)	0	0	0	-	116	237	43	-
Perk Foods	9(2)	0	0	0	0	115	157	96	74
Purina Mills	10(0)	10	0	0	0	106	157	62	-
Quaker Oats	8(4)	0	0	0	0	104	163	45	73
Ralston Purina	28(12)	4	0	0	0	110	205	45	92
Star Kist Foods	20(20)	0	5	0	0	120	157	54	76
Stop & Shop	22(19)	9	5	0	0	110	180	47	72
Sunflower	2(0)	0	0	0	-	105	163	57	-
Supermarkets General	11(9)	45	9	0	0	93	151	68	63
Tizwhiz	1(0)	0	0	0	-	112	180	76	-
Triumph	26(24)	15	4	0	0	114	138	48	88
United Coop. Farm.	2(0)	0	0	0	-	101	137	53	-
United Pet Food	2(0)	50	0	0	-	80	122	53	-
Ventura Grain	3(0)	0	0	0	-	102	112	67	-
Wauregan Grain	4(0)	25	0	0	-	104	135	68	-



The Connecticut Agricultural Experiment Station, founded in 1875, is the first experiment station in America. It is chartered by the General Assembly to make scientific inquiries and experiments

regarding plants and their pests, insects, soil and water, and to perform analyses for State agencies. The laboratories of the Station are in New Haven and Windsor; its Lockwood

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ISSN 0097-0905



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